

Claims

1. A method for determining a track record of a moving object by determining at least one characteristic properties of the object, said method comprising:

- 5 - receiving at least three Global-Positioning-System (GPS) coordinates, each of the coordinates comprising the current position of the moving object and the current time, at which the moving object is at the current position,
- storing said coordinates data in a storage means,
- 10 - utilizing the at least three coordinates for determining said at least one characteristic properties of the moving object,

and thereby obtaining a track record for the moving object, wherein the track record comprises information related to:

- 15 - direction of movement
- velocity
- perpendicular acceleration

and wherein said track record data is utilized to create user information.

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2. A method according to claim 1, wherein the rate of collecting the GPS-coordinates and/or determining the at least one characteristic property data of the moving object is in the range of 0.01-2 seconds, preferably 0.5-1.5 seconds, and more preferably 0.8-1.2 seconds.

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3. A method according to claims 1 or 2, wherein the moving object collects the first GPS data when its engine is running.

30 4. A method according to any of the preceding claims, wherein the collection of the GPS data is based on starting and shutting down the engine of the moving object.

5. A method according to any of the preceding claims, wherein the moving object collects the first GPS data when it exceeds a predetermined velocity limit.

6. A method according to any of the preceding claims, wherein the coordinates data are stored as at least one data package, the at least one data package comprising at least one timestamp coordinate point as a reference point for said at least one data package, the timestamp giving the absolute position and absolute time of the moving object, and a plurality of coordinate data points as a deviation from the timestamp coordinate point.

7. A method according to any of the preceding claims, wherein the at least one characteristic property of the object is determined and stored prior to transmitting the GPS and characteristic property data to a computer system.

8. A method according to any of the preceding claims, wherein the track record of the moving object for a predetermined time limit comprises at least one of the following data:

- the total distance the automobile has travelled,
- the total time the automobile has been driving,
- where and/or when said predetermined limits has been exceeded,
- the speed,
- the acceleration,
- the perpendicular acceleration,
- the position,
- the brake distance, and
- at what speed the moving object was most frequently moving.

9. A method according to any of the preceding claims, wherein the track record comprises linking the position and/the time of the moving object to each of the at least one characteristic property data.

10. A method according to any of the preceding claims, further comprising means for obtaining at least one environmental parameter, wherein each of said parameters can be associated with a GPS coordinate.

11. A method according to any of the preceding claims, wherein the at least one environmental parameters is such as precipitation, temperature, moisture, or wind-speed.

12. A method according to any of the preceding claims, wherein the at least one environmental parameters influence how the upper-and lower limit of the at least one characteristic property is defined.

5 13. A method according to any of the preceding claims, further comprising means for transmitting the track record data and optionally the at least one characteristic property data through a wireless network to a recipient.

10 14. A method according to any of the preceding claims, wherein the GPS coordinates are transmitted to a computer system on a receiver side.

15. A method according to any of the preceding claims, wherein the information comprise any of the following:

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- moving manner,
 - velocity comparison with a velocity database,

wherein the velocity database includes information about upper and lower velocity limits in certain areas.

20 16. A method according to any of the preceding claims, wherein the at least one characteristic property of the object is determined in the computer system subsequently after transmitting the GPS data to the computer system and based thereon the track record of the moving object is obtained.

25 17. A method according to any of the preceding claims, wherein the user is the moving object.

30 18. A method according to any of the preceding claims, wherein the at least one characteristic property data are transmitted to a receiver repeatedly.

19. A method according to any of the preceding claims, further comprising means for receiving user information from the receiver.

20. A method according to any of the preceding claims, wherein the received user information from the receiver is a warning signal, indicating when the moving object is outside the interval defined by the upper and lower limit of the at least one characteristic property.

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21. A method according to any of the preceding claims, wherein the moving object is a motor vehicle.

22. A method according to claims, wherein the moving object is an airplane.

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23. A method according to claim 22, wherein the track record of the airplane comprises at least one of the following data:

- keeping inside recommended 3-dimensional geo-fence,
- speed and/or variations thereof,
- 15 - linear acceleration,
- perpendicular acceleration
- altitude and/or variations thereof, and
- position,

20 wherein real time processing of said data can be transformed into a signal and obtained by a receiver.

24. A method according to claims 1-20, wherein the receiver is air-traffic controller.

25 25. A method according to claims 1-20, wherein the moving object is a ship.

26. A registration system for determining a track record of a moving object by determining at least one characteristic properties of the object, said system comprising:

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- means for receiving at least three Global-Positioning-System (GPS) coordinates, each of the coordinates comprising the current position of the moving object and the current time, at which the moving object is at the current position,
 - means for storing said coordinates data in a storage means,

- means for utilizing the at least three coordinates for determining said at least one characteristic properties of the moving object,

5 and thereby obtaining a track record for the moving object, wherein the track record comprises information related to:

- direction of movement
- velocity
- perpendicular acceleration

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and wherein said track record data is utilized to create user information.

15 27. A system according to claim 26, further comprising at least one sensor for measuring at least one environmental parameter and associate said parameter with a GPS coordinate.

28. A system according to claims 26 or 27, further comprising a transceiver for transmitting and/or receiving data from the registration system.

20 29. A system according to any of the claims 26-28, wherein a computer system is located external from the registration system.

30. A system according to any of the claims 26-29, wherein the data transmitting and/or data receiving is performed through a wireless network system.

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31. A system according to claim 30, wherein the wireless network is a satellite system and/or telephone network and/or radio transmitting system and/or mobile telephone system and/or infrared data transmission.

30 32. A system according to any of the claims 26-31, wherein the moving object is a motor vehicle.

33. A system according to claim 32, wherein the registration system is plugged to the electric system of the motor vehicle for powering the registration system.

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34. A system according to claim 32, wherein the registration system is provided with a battery for powering the registration system.

5 35. A system according to any of the claims 26-31, wherein the moving object is an airplane and the system is an additional data storage and processing means comprising information relating to at least one of the following data:

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- keeping inside recommended 3-dimensional geo-fence,
 - speed and/or variations thereof,
 - linear acceleration,
 - perpendicular acceleration
 - altitude and/or variations thereof, and
 - position,

15 wherein real time processing of said data can be transformed into a signal and obtained by a receiver.

20 36. A system according to any of the claim 35, wherein the receiver is air-traffic controller.

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